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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/282,101	03/30/1999	KEVAN LEE MILLER	YO998-527	8176

7590 06/15/2004  
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EXAMINER

HARPER, KEVIN C

ART UNIT	PAPER NUMBER
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2666

DATE MAILED: 06/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/282,101

Applicant(s)

MILLER ET AL.

Examiner

Kevin C. Harper

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 26 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 2-9, 11-18, 20-27 and 29-41 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2-9, 11-18, 20-27 and 29-41 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

***Response to Arguments***

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection. The indicated allowability of claims 2-5, 8-18, 20-23, 26-37 is withdrawn in view of newly discovered reference, Bracho et al. (US 5,870,605). Rejections based on the newly cited reference follow.

***Claim Objections***

1. Claim 2 is objected to because of in line 2, "said logging network including logging a message" should be --said logging network for logging a message--, and in line 4, "said sequence network comprising sequencing a message" should be --said sequence network for sequencing--. Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 2, 4, 6-8, 14, 20, 22, 24-26, 32 and 36-41 are rejected under 35 U.S.C. 103(a) as being obvious over Lamport et al. (US 5,138,615) in view of Bracho et al. (US 5,870,605).

2. Regarding claims 2, 4, 6-8, 14, 20, 22, 24-26, 32, 36-37 and 40-41, Lamport discloses a method for reconfiguring a routing network (abstract, last four lines). The method comprises quiescing all messages of the routing network (Figure 20; col. 34, lines 6-17; col. 39, lines 20-28) and reconfiguring the quiesced routing network (col. 42, lines 31-36; col. 46, lines 49-54; col. 47, lines 6-14; col. 48, lines 28-32), where the reconfiguration is transparent to the hosts (col. 42, lines 56-58). The network switches (Figure 3) each have FIFO queues (Figures 10-11) to hold a

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sequence of packets. However, Lamport does not disclose a publish/subscribe system. Bracho discloses a publish/subscribe system for transmitting data messages over a network (Figure 1; abstract, lines 1-5), where control messages are transmitted within the network to facilitate the publish/subscribe function of the system (Figure 10). The routing of data in the publish/subscribe system is content-based (col. 1, line 67 through col. 2, line 1-6). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to have a publish/subscribe system in the network of Lamport in order to provide services and value for network customers. Lamport in view of Bracho does not disclose that the quiescing preserves a first-in first-out ordering of data messages within the routing network (Lamport, col. 42, lines 31-36). Examiner takes Official Notice that a switch in a communication system preferably queues data packets or maintains queued data packets when the switch is temporarily unable to transmit the packets. Therefore, it would have been obvious to one skilled in the art at the time the invention was made to preserve the data packets within FIFO queues during quiescing and reconfiguration of the routing network in the invention of Lamport in view of Bracho in order to prevent data packets from being retransmitting by the host devices (Lamport, Figures 2-3) due to and at each occurrence of a network reconfiguration (note: for claims 20-21, 24, 32 and 35-37, as interpreted under 35 USC 112, 6<sup>th</sup> paragraph, the switches performing a distributed network reconfiguration as disclosed in Lamport are structurally equivalent to the computing units of the instant application as noted on page 9, all lines and page 23, line 17 through page 24, line 8 of the specification).

3. The limitations of claims 38 and 39, as addressed in the rejection of claim 1 above, are performed by a computer readable program code means (Figure 3, items 124, 126, 140 and 142) for quiescing the routing network (Figure 20; col. 34, lines 6-17; col. 39, lines 20-28) and for

reconfiguring the quiesced routing network (col. 42, lines 31-36; col. 46, lines 49-54; col. 47, lines 6-14; col. 48, lines 28-32).

Claims 3, 11, 16-17, 21, 29 and 34-35 rejected under 35 U.S.C. 103(a) as being unpatentable over Lamport in view of Bracho, as applied to claim 2, 8, 14, 15, 20, 27, 32 or 33 above, in further view of Abe et al. (US 2003/0091049).

4. Regarding claims 3, 11, 16-17, 21, 29 and 34-35, Lamport in view of Bracho discloses a publish subscribe system having sequencing (Bracho, Figure 9). However, Lamport in view of Bracho does not disclose sequencing nodes. Abe discloses rearranging a sequence of packets at a sequencing node (para. 121, last sentence). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to have a sequencing node in the network of Lamport in view of Bracho in order to prevent out-of-order errors in receiving data which was transmitted in sequence.

Claims 5, 9, 13, 23, 27 and 30 rejected under 35 U.S.C. 103(a) as being unpatentable over Lamport in view of Bracho, as applied to claim 4, 8, 22, 26 or 29 above, in further view of Iwamura et al. (US 6,396,814).

Claims 12 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lamport in view of Bracho and Abe, as applied to claim 11 or 29 above, in further view of Iwamura et al. (US 6,396,814).

5. Regarding claims 5, 9, 12-13, 23, 27 and 30, Lamport in view of Bracho (or Lamport in view of Bracho and Abe) discloses transmitting quiesce messages from parent nodes to child nodes. However, Lamport in view of Bracho (or Lamport in view of Bracho and Abe) does not disclose sending acknowledgements from child nodes to parent nodes in response to receiving a control message. Iwamura disclose transmitting an acknowledgement to a parent node in response to a

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network configuration (col. 6, line 48 through col. 7, line 3). When all child nodes acknowledge a control message, then the parent node transmits an acknowledgement to its parent (Figure 67, steps S333 and S334). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to acknowledge a quiesce message in the invention of Lampport in view of Bracho (or Lampport in view of Bracho and Abe) so that a node is made aware that a network configuration or reconfiguration is properly occurring.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Harper whose telephone number is 703-305-0139. The examiner can normally be reached weekdays, except Wednesday, from 9:30 AM to 8:00 PM ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema S. Rao, can be reached at 703-308-5463. The fax number for Technology Center (TC) 2600 is 703-872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Customer Service Office for TC 2600 at 703-306-0377.

Kevin C. Harper



June 10, 2004



DANG TON  
PRIMARY EXAMINER